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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/918,968	07/30/2001	Hatem Oueslati	PALM-3686	2575

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EXAMINER

EISEN, ALEXANDER

ART UNIT	PAPER NUMBER
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2674

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DATE MAILED: 10/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/918,968

Applicant(s)

OUESLATI ET AL.

Examiner

Alexander Eisen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 5 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 3.

When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-8 and 12-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Morgenthaler, Us 6,310,609.

Morgenthaler discloses a user interface for portable electronic device including a keyboard having illuminated keys for providing a user with guide functions (see abstract, FIGS. 1, 4 and 5; col. 5, line 42 – col. 6, line 60).

As to claim 2, Morgenthaler's buttons have contoured region in shape of symbols, which functions they represent

As to claims 3, 5 and 7-8, the button can have two different colors illuminating sources to convey to the user another function (col. 5, lines 36-42; col. 9, lines 10-15).

As to claim 4, the illuminatable keys are controlled by a microcontroller executing a program (see flowchart in FIG. 4).

As to claims 12-13, Morgenthaler further teaches, that in order to provide the user with additional information, an indexing key (up and down key 342) is equipped with two light sources, which are only illuminated when the user can scroll up or down (see col. 6, line 60 – col. 7, line 3).

4. Claims 1, 4 and 6 are also rejected under 35 U.S.C. 102(b) as being anticipated by Giannuzzi et al., (“Giannuzzi”), US 3,911,424.

With respect to claims 1 and 6, Giannuzzi discloses a palmtop computer (electronic calculator in FIG. 1) comprising a processor (CPU 35), a memory unit (36, 37) and a plurality of illuminatable hard buttons (11, 13, 15-17, 31), the memory unit is coupled to the processor and includes instructions that when executed by the processor, selectively illuminates ones of the buttons to convey information to a user that relates to a function performed by that hard button when it is pressed (see FIG. 6; col. 3, lines 19-42).

As to claim 4, the illumination of the buttons is programmable, i.e. the displayed sequence of illuminating the buttons is corresponding to the program inputted into calculator storage.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2, 3, 5 and 7-8 are additionally rejected under 35 U.S.C. 103(a) as being unpatentable over Giannuzzi in view of Muurinen, US 5,408,060.

Giannuzzi discloses a palmtop computer comprising a processor, a memory unit and a plurality of illuminatable hard buttons, the memory unit is coupled to the processor and includes instructions that when executed by the processor, selectively illuminates ones of the buttons to convey information to a user that relates to a function performed by that hard button when it is pressed.

Giannuzzi further discloses that the indicator lights can be located inside the buttons (col. 3, lines 39-42), but is not specific of how the symbols on the buttons are formed and illuminated.

Muurinen teaches an illuminated button keyboard, wherein information about the button current functions is conveyed to a user by providing a light of different colors through a contoured region on the top of the button, the region formed in the shape of a symbol that represent a primary function that is performed, when the button is pressed (see FIGS. 1-6, 12; col. 2, line 56 – col. 3, line 11).

It would have been obvious to one of ordinary skill in the art at the time when the invention was made to employ Muurinen's teachings in the keyboard of Giannuzzi, because it complements Giannuzzi by disclosing a concrete and efficient implementation of the buttons with embedded light sources taught by Giannuzzi.

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As to claims 3, 5 and 7, Muurinen teaches that the buttons can be illuminated with different colors conveying additional information to a user (for example that the button belongs to different group of functions).

As to claim 8, Muurinen further teaches that the color of the light emitted through the contoured region communicates further information to the user that can be related to a secondary function (col. 3, lines 12-21).

7. Claims 9-10 and 14-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Detlef, US 6,178,403 in view of Chou, US 6,339,374 and further in view of Morgenthaler.

With respect to claims 9-10 and 14-28 Detlef discloses a palmtop computer system (FIG. 1) provided with various hard buttons for interfacing with such application programs as a date book application (button 22), address book application (button 32), to-do application (button 38) and memo application (button 34).

Pressing the hard buttons starts the corresponding application and a user receives or is notified of different conditions and alerts related to the applications through the audio signals or by displaying them on the LCD display.

Detlef does not teach that those conditions or events are conveyed to the user by means of illuminating related buttons.

Chou teaches a receiving indication apparatus for e-mail located in a computer keyboard, wherein when the e-mail is arrived to the computer, a user is alerted by activating a light emitting diode (col. 2, lines 45-55). Thus, Chou teaches that the event occurred in a computer system can be conveyed to the user by means of light indicator situated on the computer keyboard.

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None of the above teaches or suggests that the alert can be conveyed to the applicant by illuminating a contoured region formed on the button in a shape of a symbol that represents the corresponding application.

Morgenthaler discloses a user interface for portable electronic device including a keyboard having illuminated keys for providing a user with guide functions, wherein the buttons have contoured regions in shape of symbols, which functions they represent.

It would have been obvious to one of ordinary skill in the art at the time when the invention was made that in view of Morgenthaler various events associated with the applications taught by Detlef can be conveyed to the user by light indication alert messages as taught by Chou by using the lighted buttons arrangement taught by Morgenthaler, because the latter lends itself conveniently to such usage without necessity to provide additional light sources, and therefore allows the optimal usage of the limited space of palm top computing system.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Blanchard et al., US 6,415,164 B1.

Metso et al., US 5,920,826.

Jaeger, US 5,867,149.

Acevedo, US 5,818,361.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Eisen whose telephone number is (703) 306-2988.

The examiner can normally be reached on M-F (9:00 a.m. - 4:00 p.m.).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard A. Hjerpe can be reached on (703) 305-4709.

Any response to this action should be **mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or **faxed to:**

(703) 872-9314 (for Technology Center 2600 only).

Hand-delivered responses should be **brought to:** Crystal Park Two, 2121 Crystal Drive, Arlington, Virginia, Sixth Floor Receptionist.

Any inquiry of a general nature or relating to the status of this application or proceeding should be **directed to:** Technology Center 2600 Customer Service Office, whose telephone number is (703) 306-0377.



Alexander Eisen
October 10, 2003